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Attorney Docket: 17396/09015 (41-21/52259)

ABSTRACT OF THE DISCLOSURE

A method of improving the yield and vigor of agronomic plants, in particular leguminous plants such as soybeans, involves treating such plants and/or the propagation material of plants with a composition that includes an active agent, such as a fungicide, that has no significant activity against fungal plant pathogens of the treated plant. When the plant is not wheat, a preferred agent of this type is 4,5-dimethyl-N-(2-propenyl)-2-(trimethylsilyl)-3-thiophenecarboxamide (silthiofam). Plants and plant propagation material, such as seeds, that have been treated by the novel method are also described.